What is claimed is:

1. An acoustic diaphragm having a dynamic response extending throughout the audible range, comprising a rigid plate-like member supported upon, and pivotal about, a side thereof, said rigid plate-like member having torsional and translational stiffeners.

2. The acoustic diaphragm in accordance with claim 1, wherein said torsional and translational stiffeners comprise cross members.

3. The acoustic diaphragm in accordance with claim 1, wherein the side that supports the diaphragm comprises a "T" section whose length and cross-section can be varied to tune said acoustic diaphragm for a resonant frequency.

4. The acoustic diaphragm in accordance with claim 1, wherein said rigid plate-like member is fabricated of polycrystalline silicon or similar materials.

5. The acoustic diaphragm in accordance with claim 1, wherein said rigid plate-like member comprises a substantially flat shape.

6. The acoustic diaphragm in accordance with claim 1, wherein said rigid plate-like member comprises a substantially box-like shape.

7. The acoustic diaphragm in accordance with claim 1, wherein said plate-like member is approximately 2 microns thick.

8. The acoustic diaphragm in accordance with claim 1, wherein said torsional and translational stiffeners are approximately 4 microns thick and 40 microns tall.

9. The acoustic diaphragm in accordance with claim 1, having a first resonance frequency of approximately 24 kHz.

10. The acoustic diaphragm in accordance with claim 1, having a second resonance frequency of approximately 84 kHz.

11. An acoustic diaphragm having a dynamic response extending beyond an audible range, comprising a rigid plate-like member supported upon, and pivotal about, a "T" section disposed on a side thereof, said rigid plate-like member having torsional and translational crossbar stiffeners to provide a robust dynamic response extending throughout the audible range.

12. The acoustic diaphragm in accordance with claim 11, wherein said rigid plate-like member is fabricated of polycrystalline silicon or similar materials.

13. The acoustic diaphragm in accordance with claim 11, wherein said rigid plate-like member comprises a substantially flat shape.

14. The acoustic diaphragm in accordance with claim 11, wherein said rigid plate-like member comprises a substantially box-like shape.

15. The acoustic diaphragm in accordance with claim 11, wherein said plate-like member is approximately 2 microns thick.

16. The acoustic diaphragm in accordance with claim 11, wherein said torsional and translational stiffeners are approximately 4 microns thick and 40 microns tall.

17. The acoustic diaphragm in accordance with claim 11, having a first frequency mode of approximately 24 kHz.

18. The acoustic diaphragm in accordance with claim 11, having a second frequency mode of approximately 84 kHz.

19. An acoustic diaphragm having a dynamic response extending throughout the audible range, comprising a rigid plate-like member cantilevered about one side thereof, said rigid plate-like member having torsional and translational stiffeners to provide a robust dynamic response extending throughout the audible range.

20. The acoustic diaphragm in accordance with claim 19, wherein said torsional and translational stiffeners comprise cross members.

21. The acoustic diaphragm in accordance with claim 19, wherein the side that is cantilevered comprises a "T" section whose length and cross-section can be varied to tune said acoustic diaphragm for a resonant frequency.

22. The acoustic diaphragm in accordance with claim 19, wherein said rigid plate-like member is fabricated of polycrystalline silicon or similar material.

23. The acoustic diaphragm in accordance with claim 19, wherein said rigid plate-like member comprises a substantially flat shape.

24. The acoustic diaphragm in accordance with claim 19, wherein said rigid plate-like member comprises a substantially box-like shape.

25. The acoustic diaphragm in accordance with claim 19, wherein said plate-like member is approximately 2 microns thick.

26. The acoustic diaphragm in accordance with claim 19, wherein said torsional and translational stiffeners are approximately 4 microns thick and 40 microns tall.

27. The acoustic diaphragm in accordance with claim 19, having a first frequency mode of approximately 24 kHz.

28. The acoustic diaphragm in accordance with claim 19, having a second frequency mode of approximately 84 kHz.